

ON A NEW SPECIES OF *MACADAMIA*, TOGETHER
WITH NOTES ON TWO PLANTS NEW TO THE
COLONY.

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MACADAMIA INTEGRIFOLIA, sp. nov.

Small bushy tree, glabrous except the inflorescence and young shoots. *Leaves* petiolate, irregularly whorled in threes, oblong-lanceolate, entire, obtuse, about 5 to 7 inches long, strongly reticulate. *Flowers* in axillary simple racemes often as long as the leaves, generally in pairs irregularly clustered on the rachis. *Pedicels* about 2 lines long, minutely pubescent. *Corolla* 2 to 3 lines long, nearly glabrous. *Hypogynous glands* united in a ring. *Ovary* hairy, style glabrous or nearly so, with a clavate stigmatic end. *Fruit* globular, with a coriaceous exocarp and a hard endocarp, about $\frac{3}{4}$ inch diameter.

Hab.—Camden Haven, New South Wales. Collected about 30 years ago either by Mr. Charles Moore or Mr. Carron, a former Botanical Collector of the Sydney Botanic Gardens.

Closely allied to the Nut-tree, *Macadamia ternifolia*, F.v.M. (of New South Wales and Queensland), from which it is readily distinguished by the petiolate entire leaves, rather smaller fruits and less hairy flowers and inflorescence.

It may be pointed out that the sucker leaves have occasionally leaves with toothed margins, and shorter petioles, somewhat resembling the leaves of *M. ternifolia*, which shows the ancestral relationship of both species of *Macadamia*, but as the full grown leaves are constant in the characters indicated, and for other reasons, we have no hesitation in keeping the two species separate.

The following notes in regard to *Macadamia* and *Helicia* may be convenient for reference.

Bentham (*Flora Australiensis*, v. 406) recognises 3 species of *Macadamia*, viz., *M. Youngiana*, F.v.M., *M. ternifolia*, F.v.M., and *M. verticillata*, F.v.M.

Bentham and Hooker (Genera Plantarum, iii. 178) reduce these to two, pointing out that *M. verticillata* has been erroneously described as a *Macadamia* from a cultivated plant in the Botanic Gardens, Sydney, which has been proved to be a South African plant *Brabejum stellatifolium*, Linn. The species has since been lost to the Garden.

F. v. Mueller (Census of Australian Plants) recognises but one species of *Macadamia*, viz., *M. ternifolia*,—*M. Youngiana* being transferred to *Helicia*.

Baillon unites *Macadamia*, as well as several species hitherto described under *Helicia*, with the American genus *Andripetalum*, Schott (Baill. Vol. ii. p. 414). The characters of *Andripetalum* are ovules 2, descending, suborthotropous.

A. Engler (Die natürlichen Pflanzen-familien) recognises *Macadamia* 1 species in Australia; *Helicia* 25 species in Asia, Malayan Archipelago, and Australia; *Andripetalum* is not mentioned. We are, however, of opinion that Engler probably followed Baron von Mueller with regard to Australian plants of these genera.

Note on a Plant, hitherto only recorded from New Guinea, found in New South Wales.

Cheirostylis grandiflora, Blume, "Collection des Orchidées les plus remarquables de l'Archipel Indien et du Japon," Plate 13.

"In moist forests between rocks on the coast of New Guinea."

A plant of this species was collected by Dr. W. Finsellbach on rocky hills "in a shady locality in the dense scrub," on the Richmond River, near Lismore. It will be seen that in New South Wales it grows under conditions practically identical with those under which it occurs in New Guinea. It is a very pronounced saprophyte, growing on dead leaves. In fact some of the Richmond River specimens were living on a layer of leaves only $\frac{1}{4}$ inch thick, and under this layer was the bare rock. The upper side of the creeping rhizome is nearly always exposed to the light, or at all events to the air, and when it is found between stones the rhizome is always fixed to dead leaves.

The discovery of this New Guinea plant in New South Wales adds a genus to the flora of Australia. It is perhaps identical with *Gastrodia ovata*, F. M. Bailey (Botany Bulletin, No. xiv. p. 13, Dept. Agriculture, Queensland, 1896), and possibly identical with the *Anectochilus* ("species unascertained") recorded as having been found in Queensland. See Mueller's Census (2nd edition, p. 188).

The genus *Anectochilus* resembles *Cheirostylis* closely in habit, and the two genera may be easily confounded from imperfect material.

A shortened translation of Blume's original description of *Cheirostylis grandiflora* is given herewith, as a matter of convenience.

CHEIROSTYLIS GRANDIFLORA, Blume.

Herb with a creeping fleshy rhizome, constricted between the nodes. Scape ascending, terete, minutely glandular-hairy in the upper part and with two distant sheathing bracts between the flowers and leaves. Leaves generally 4, $\frac{3}{4}$ to above 1 inch long, and $\frac{1}{2}$ to $\frac{3}{4}$ inch broad, 3- to 5-nerved and faintly reticulate, brownish-green and somewhat purplish above, pale-purpurascens underneath. Flowers generally 3 on the scape, rarely solitary, shortly pedicellate and with a bract on the base of the pedicel. Sepals connate to above the middle, with a gibbous base, pale rose-coloured and minutely glandular-hairy outside. Petals adnate to the limb of the dorsal sepal. Labellum white, with a canaliculate gibbous base, adnate to the column, the erect concave base with inflexed margins and 4 filiform appendices inside on each side, the exserted limb dilated, 2-lobed, with cuneate lobes lacinate at the end. Column short, thick, with 2 erect appendages in front, about as long as the 2-cleft rostellum. Anthers short, acuminate, caudicle elongated.

Note on Grevillea alpina, Lindl., new for New South Wales.

This species has hitherto only been recorded from Victoria (B. Fl. v. 441). It was collected by Major (afterwards Sir

Thomas) Mitchell in his celebrated exploration of what is now the sister colony, and was described by Lindley. Our New South Wales specimens came from Albury, and were communicated by Mr. T. C. Burnell in August last. The flowers of our N.S.W. specimens are orange-red, merging into yellow in the upper half ("brownish-red," Mitchell), and nearly glabrous outside, as figured in *Bot. Mag.* t. 5007, and not villous outside as described by Bentham. Nevertheless Lindley's type specimens already referred to have villous flowers, and are somewhat different in general appearance from the Albury specimens. It might be a matter for further investigation to ascertain to what extent the species is variable before proceeding to name a variety. The species itself is readily recognised by the remarkably long hypogynous gland which projects almost horizontally into the gibbosity of the corolla (perianth).